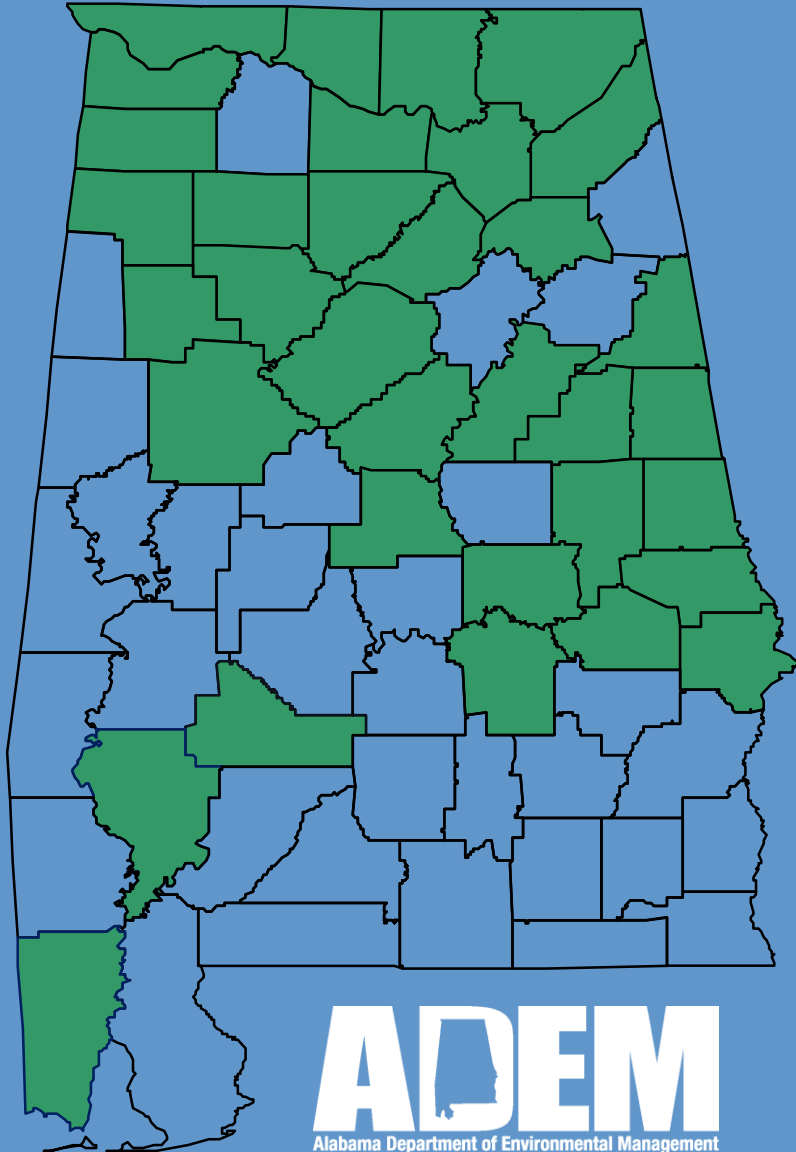


Area Wide Optimization Program



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Outline

- Turbidity Goals
- Distribution Goals
- WTP Effluent Goals

Turbidity Goals – Conventional WTP

◆ Settled Water

- Raw Water Average > 10.0 NTU
 - Settle Water < 2.0 NTU 95%
- Raw Water Average < 10.0 NTU
 - Settle Water < 1.0 NTU 95%

◆ Filtered Water

- Filters < 0.10 NTU 95%
- No reading above 0.3 NTU
- Return-To-Service within 15 minutes or filter-to-waste until below 0.10 NTU

Turbidity Goals – Membrane WTP

◆ Settled Water

- Raw Water Average > 10.0 NTU
 - Settle Water < 2.0 NTU 95%
- Raw Water Average < 10.0 NTU
 - Settle Water < 1.0 NTU 95%

◆ Filtered Water

- Membrane Effluent < 0.05 NTU 95%
- No reading above 0.15 NTU
- DIT's below limit 95% of time. Removed from service if above DIT.

Distribution Goals

◆ DBPs

- Short Term Goal
 - Each individual site's LRAA is ≤ 70 ppb for TTHM and ≤ 50 ppb for HAA5.
- Long Term Goal
 - Average of maximum LRAA based upon 11 quarters of data should be below 60 ppb for TTHM and 40 ppb for HAA5.

Distribution Goals

◆ Chlorine

- Maintain a chlorine residual above 0.20 mg/L at all locations
- Total chlorine should be within 0.2 mg/L of the free chlorine residual

◆ pH

- The pH should not significantly differ (± 0.3) from the source's pH

Distribution Goals

- ◆ Water Storage Tanks
 - Turnover time < 4 days
 - Mixing ratio > 1.0
 - Chlorine degradation < 0.7 mg/L
- ◆ Corrosion (New AWOP Area Being Developed)
 - Minimize corrosion in the distribution system.

WTP Effluent DBP Goals

- ◆ TTHM RAA 20 ppb or less
- ◆ HAA5 RAA 15 ppb or less
- ◆ TOC RAA 1.7 ppm or less

WTP Effluent Chlorine Goals

- ◆ Maintain minimum chlorine required for CT
- ◆ Maintain a minimum chlorine residual leaving to ensure chlorine is being maintained in the distribution system unless booster chlorination is used

Questions